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34845 7590 07/22/2009 Anderson Gorecki & Manaras LLP 33 NAGOG PARK ACTON, MA 01720				
EXAMINER				
DALENCOURT, YVES				
ART UNIT		PAPER NUMBER		
2457				
NOTIFICATION DATE		DELIVERY MODE		
07/22/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

09/930,097

**Applicant(s)**

MONGA ET AL.

**Examiner**

YVES DALENCOURT

**Art Unit**

2457

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No./Mail Date: 09/06/2009

### **DETAILED ACTION**

In view of the Appeal Brief filed 04/13/2009, PROSECUTION IS HEREBY REOPENED. New grounds of rejection set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

### ***Priority***

**The status of the cross-reference to related applications on page 1 of the specification needs to be updated.**

### ***Response to Arguments***

Applicant's arguments filed on 04/13/2009 have been fully considered but they are not persuasive.

Regarding Applicant's argument (pages 14 – 22) that the cited combination fails to describe an application programming interface operative to receive input from a user

application indicative of application-specific bandwidth management service requirements. The Examiner respectfully disagrees with Applicants' assertion because Sistanizadeh discloses a service level manager application in communication with the persistence layer module and the user interface. The functions of this application include monitoring the operations of the extended-area data communications network, by analyzing semantic transparency or time transparency of data traffic through the network based on the data provided by the persistence layer module from the agents in the network (see col. 2, lines 55 – 60). Applicants' disclosure (page 6, second paragraph), states that **"the OSA interacts with the optical communication network to obtain various communication services and manages those communication services for the network user based upon predetermined parameters defined by the network users. In essence, then, the optical communication network provides a "core" set of communication services that can be accessed by the OSA, and the OSA provides advanced communication services for the network user using the "core" set of communication services provided by the optical communication network"**. Applicants argued that the inventive concept of this instant application is different from the reference of Sistanizadeh due to the fact that Sistanizadeh discloses that the "user interface is accessible both by carrier staff personnel and by end-user customers. Of course, they have to input their parameters on the user interface, and the application program resides on the user interface manages the user's network based on the received input parameters using an agent.

It appears that applicants are interpreting the claims very narrow without

considering the broad teaching of the references used in the rejection. Applicants are reminded that the examiner is entitled to the broadest reasonable interpretation of the claims. The Applicants always have the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater 162 USPQ 541, 550-51 (CCPA 1969).

### ***Claim Objections***

Claims 1, 12, and 24 objected to because of the following informalities: It is suggested to delete "operative" in the claims. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8 – 11, 20 – 23, and 26 – 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 8 – 11, 20 – 23, and 26 – 30, the term "is operably coupled to" is not clear. It is suggested to recite for example in claim 8 --- wherein the bandwidth controlling logic prevents -----.

Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 31, the limitation of “monitoring bandwidth utilization by an optical service agent **in the user on a connection in the optical communication system**” is not understood. It is kindly suggested to clarify such limitation since it is not clear to the Examiner.

#### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 12, 24, and 31 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. According to the specification (pages 38 - 41), the terms “optical service agent and optical service logic” can be interpreted as modules, programs, functions, and subroutines. Such terms need to be stored on a computer readable medium and executed by a computer to perform the steps/functions as recited in the claims. Thus, the claims are software per se based on the portions of the disclosure mentioned above.

Claims 2 – 11, 13 – 23, 25 – 30, and 32-36 are necessarily rejected as being dependent upon the rejection of claims 1, 12, 24, and 31.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 - 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sistanizadeh et al. US Patent No. 6,681,232 in view of Ghani US Patent No. 6,728,484. Sistanizadeh teaches the invention as claimed including a method for provisioning bandwidth (see abstract). Ghani teaches provisioning an optical network (see abstract).

As per claim 1, Sistanizadeh teaches an Apparatus for providing bandwidth management services for a user in an optical communication system, comprising; the optical service agent including: an application programming interface [API 113]

operative to receive input from a user application indicative of application-specific bandwidth management service requirements (col. 2, lines 37 – 67; *Sistanizadeh discloses a service level manager application in communication with the persistence layer module and the user interface. The functions of this application include monitoring the operations of the extended-area data communications network, by analyzing semantic transparency or time transparency of data traffic through the network based on the data provided by the persistence layer module from the agents in the network*); a user-to-network interface (UNI) for interfacing with an optical communication network (column 7, lines 1-40); a peer-to-peer interface for interfacing with peer users (personal computers; column 7, lines 1-40); and optical service logic for interfacing with the application programming interface [API 113] and the communication network via the UNI and with the peer users via the peer-to-peer interface for providing said application specific bandwidth management services for the user (SLM Application Server; column 5, lines 34-55; Figure 2; customer request increase in bandwidth; column 5, lines 54-67; column 6, lines 54-65); and an optical service server operative to authenticate the user, obtain network topological information, and to employ the network topological information on behalf of the optical service agent for providing bandwidth management services such that the network topological information is not exposed to the user (provisioning service module, authenticates user and user has options to increase or decrease bandwidth, but the user does not access the network topology, the topology is accessed by the provisioning service module column 21, lines 15-63).

Sistanizadeh teaches substantially all the limitations, but fails to teach in which



data is processed and transported on in optical form, and including the provision of a new optical communication path between specified nodes in the optical communication network.

Ghani et al. teaches in which data is processed and transported on in optical form, and including the provision of a new optical communication path between specified nodes in the optical communication network. See column 1, lines 40-49; column 4, lines 50-67; column 5, lines 20-25; column 7, lines 49-60; column 9, lines 13-30; column 10, lines 5-49. It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the provision of Sistanizadeh with the all optical network of Ghani et al. A person of ordinary skill in the art would have been motivated to do this to provide adequate provisioning of the backbone network (Sistanizadeh column 5, lines 54-64).

As per claims 12 and 24 Sistanizadeh teaches a device and a system comprising: a user application requiring communication services from an optical communication network (column 7, lines 40-47); and optical service agent operative in response to signaling from the user application [end user customer requests bandwidth increase, the SLM can be accessed by the NOC or by a customer using a web based interface; column 2, lines 63-67; column 5, lines 54-67; column 6, lines 54-67; column 7, lines 10-40] for providing bandwidth management services for the user application (optical service logic; Figure 2; column 5, lines 34-55); and an optical service server operative to authenticate the user, obtain network topological information, and to employ the network topological information on behalf of the optical service agent for

providing bandwidth management services such that the network topological information is not exposed to the user (provisioning service module, authenticates user and user has options to increase or decrease bandwidth, but the user does not access the network topology, the topology is accessed by the provisioning service module column 21, lines 15-63).

Sistanizadeh does not teach in which data is processed and transported on in optical form, and including the provision of a new optical communication path between specified nodes in the optical communication network. Ghani teaches in which data is processed and transported on in optical form, and including the provision of a new optical communication path between specified nodes in the optical communication network. See column 1, lines 40-49; column 4, lines 50-67; column 5, lines 20-25; column 7, lines 49-60; column 9, lines 13-30; column 10, lines 5-49.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the provision of Sistanizadeh with the all optical network of Ghani et al. A person of ordinary skill in the art would have been motivated to do this to provide adequate provisioning of the backbone network (Sistanizadeh column 5, lines 54-64).

As per claim 31, Sistanizadeh teaches a method for managing bandwidth for a user in an optical communication system, the method comprising at least one of: Monitoring bandwidth utilization by an optical service agent in the user on a connection in the optical communication system (column 1, lines 45-67); Controlling bandwidth utilization by an optical service agent in the user on a connection in the optical

communication system (11, lines 34-64; column 15, lines 19-55); Obtaining additional bandwidth by an optical service agent in the user on a connection in the optical communication system (column 19, lines 1-35); Relinquishing unused bandwidth by an optical service agent in the user on a connection in the optical communication system (column 21, lines 45-67); and Allocating bandwidth by an optical service agent in the user among multiple connections in the optical communication system (column 21, lines 45-67; column 22, lines 15-27; Figure 9); Prior to which an optical service server executes the following steps: authenticate the user, obtain network topological information, and to employ the network topological information on behalf of the optical service agent for providing bandwidth management services such that the network topological information is not exposed to the user (provisioning service module, authenticates user and user has options to increase or decrease bandwidth, but the user does not access the network topology, the topology is accessed by the provisioning service module column 21, lines 15-63).

Sistanizadeh does not teach in which data is processed and transported on in optical form, and including the provision of a new optical communication path between specified nodes in the optical communication network. Ghani et al. teaches in which data is processed and transported on in optical form, and including the provision of a new optical communication path between specified nodes in the optical communication network. See column 1, lines 40-49; column 4, lines 50-67; column 5, lines 20-25; column 7, lines 49-60; column 9, lines 13-30; column 10, lines 5-49.

It would have been obvious to a person of ordinary skill in the art at the time of

the invention to combine the provision of Sistanizadeh with the all optical network of Ghani et al. A person of ordinary skill in the art would have been motivated to do this to provide adequate provisioning of the backbone network (Sistanizadeh column 5, lines 54-64).

As per claims 2, 14, and 25 Sistanizadeh and Ghani et al. teach the apparatus, device, and system of claims 1, 13, 24, wherein the optical communication network comprises an automatically switched optical/transport network (ASON), and wherein the UNI comprises an ASON UNI (Sistanizadeh column 30, lines 19-32).

As per claims 3, 15 and 26 Sistanizadeh and Ghani et al. teach the apparatus, device, and system of claims 1, 13 and 24 wherein the optical service logic comprises: bandwidth monitoring logic for monitoring bandwidth utilization on a connection (Sistanizadeh column 17, lines 45-67; column 15, lines 18-35; column 19, lines 21-35).

As per claims 4, 16, and 27, Sistanizadeh and Ghani et al. teach the apparatus, device, and system of claims 1, 13, and 24, wherein the optical service logic comprises: bandwidth controlling logic for controlling bandwidth utilization on a connection (Sistanizadeh column 15, lines 20-55).

As per claims 5, 17 and 28, Sistanizadeh and Ghani et al. teach the apparatus, device, and system of claims 1, 13 and 24, wherein the optical service logic comprises: bandwidth obtaining logic for obtaining additional bandwidth for a connection (Sistanizadeh column 11, lines 34-67; column 19, lines 1-20; column 21, lines 45-67; column 22, lines 15-27).

As per claims 6, 18 and 29, Sistanizadeh and Ghani et al. teach the apparatus,

device, and system of claims 1, 13, and 24, wherein the optical service logic comprises: bandwidth relinquishing logic for relinquishing excess bandwidth for a connection (Sistanizadeh column 11, lines 34-67; column 19, lines 1-20; column 21, lines 45-67; column 22, lines 15-27).

As per claims 7, 19 and 30 Sistanizadeh and Ghani et al. teach the apparatus, device, and system of claims 1, 13 and 24, wherein the optical service logic comprises: bandwidth allocation logic for allocating bandwidth among multiple connections (Sistanizadeh column 11, lines 34-67; column 19, lines 1-20; column 21, lines 45-67; column 22, lines 15-27).

As per claims 8, 20 and 32 Sistanizadeh and Ghani et al. teach the apparatus, device, and method of claims 4, 16 and 31 wherein the bandwidth controlling logic is operably coupled to prevent bandwidth utilization on the connection from exceeding a predetermined maximum bandwidth utilization (Sistanizadeh column 15, lines 20-55).

As per claims 9, 21 and 34, Sistanizadeh and Ghani et al. teach the apparatus, device, and method of claims 5, 17 and 31 wherein the bandwidth obtaining logic is operably coupled to obtain the additional bandwidth for the connection upon determining that bandwidth utilization on connection exceeds a predetermined level (Sistanizadeh column 15, lines 18-35; column 17, lines 45-67; column 19, lines 21-35).

As per claims 10, 22 and 35, Sistanizadeh and Ghani et al. teach the apparatus, device, and method of claims 6, 18 and 31 wherein the bandwidth relinquishing logic is operably coupled to relinquish excess bandwidth for the connection upon determining that bandwidth utilization on the connection is below a predetermined level

(Sistanizadeh column 15, lines 20-55; column 11, lines 34-67; column 19, lines 1-35; column 21, lines 45-67; column 22, lines 15-27).

As per claims 11, 23 and 36 Sistanizadeh and Ghani et al. teach the apparatus, device, and method of claims 7, 19 and 31 wherein the bandwidth allocation logic is operably coupled to identify an over-utilized connection and an under-utilized connection and to transfer traffic from the over-utilized connection to the under-utilized connection Sistanizadeh (column 15, lines 20-55; column 11, lines 34-67; column 19, lines 1-35; column 21, lines 45-67; column 22, lines 15-27).

As per claim 13, Sistanizadeh and Ghani teach the device of claim 12, wherein the optical service agent comprises: a user-to-network interface (UNI) for interfacing with an optical communication network (Sistanizadeh; column 7, lines 1-40); a peer-to-peer interface for interfacing with peer users (Sistanizadeh; personal computers; column 7, lines 1-40); and optical service logic for interfacing with the optical communication network via the UNI and with the peer users via the peer-to-peer interface for providing said bandwidth management services for the user application (Sistanizadeh; SLM Application Server; column 5, lines 34-55; Figure 2; customer request increase in bandwidth; column 5, lines 54-67; column 6, lines 54-65).

As per claim 33, Sistanizadeh and Ghani et al. teach the method of claim 32 wherein taking an action to prevent the bandwidth utilization from exceeding a predetermined maximum bandwidth utilization comprises dropping packets (Sistanizadeh column 15, lines 20-55; column 11, lines 34-67; column 19, lines 1-35; column 21, lines 45-67; column 22, lines 15-27).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nicolae Marius Busuioc (US 6,226,273) discloses communication network management.

### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YVES DALENCOURT whose telephone number is (571)272-3998. The examiner can normally be reached on M-F 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/YVES DALENCOURT/  
Primary Examiner, Art Unit 2457